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AF / zw  
PATENT

**TRANSMITTAL LETTER**

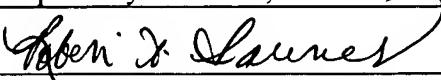
Attorney Docket No.	Serial No.
117P60US01	10/091,634

MS: Appeal Brief-Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

In re Application of:	James R. Mock, Sr. et al.					
Serial No.:	10/091,634	Examiner:	Nihir B. Patel			
Confirmation No.:	9156	Art Unit:	3743			
Filed:	March 5, 2002					
For:	METHOD OF DISPENSING CYANURIC ACID					
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Return Postcard Transmittal Letter [1 page] Fee Transmittal for FY 2005 [1 page] Appeal Brief [39 pages]						

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Respectfully submitted,

Registration No. 45,070	Direct Dial 612-331-7419	
Date: September 27, 2005		Robin A. Sannes

United States Patent and Trademark Office

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Date of Mailing September 27, 2005	Signature  Printed Name Robin A. Sannes
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PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of: James R. Mock, Sr. et al. Examiner: Nihir B. Patel  
Serial No.: 10/091,634 Group Art Unit: 3743  
Confirmation No.: 9156 Docket No.: 117P60US01  
Filed: March 5, 2002  
Title: METHOD OF DISPENSING CYANURIC ACID

APPEAL BRIEF

Mail Stop: Appeal Brief - Patents  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Dear Sir:

This is an appeal from the Office Action mailed May 17, 2005 rejecting claims 2-5 and 7-27. The Notice of Appeal was filed via facsimile on August 5, 2005. Accordingly, the due date for this Appeal Brief is October 5, 2005. The fee required under 37 CFR §41.20(b)(2) for the appeal should be charged to Deposit Account No. 50-0549.

09/30/2005 ZJUHAR1 00000001 500549 10091634

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# FEE TRANSMITTAL

## For FY 2005

 Applicant claims small entity status. See 37 CFR 1.27

TOTAL AMOUNT OF PAYMENT (\$ 500.00)

## Complete if Known

Application Number	10/091,634
Filing Date	March 5, 2002
First Named Inventor	James R. Mock, Sr. et al.
Examiner Name	Nihir B. Patel
Art Unit	3743
Attorney Docket No.	117P60US01

## METHOD OF PAYMENT (check all that apply)

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## FEE CALCULATION

## 1. BASIC FILING, SEARCH, AND EXAMINATION FEES

Application Type	FILING FEES		SEARCH FEES		EXAMINATION FEES		Fees Paid (\$)
	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	Fee (\$)	Small Entity Fee (\$)	
Utility	300	150	500	250	200	100	
Design	200	100	100	50	130	65	
Plant	200	100	300	150	160	80	
Reissue	300	150	500	250	600	300	
Provisional	200	100	0	0	0	0	

## 2. EXCESS CLAIM FEES

## Fee Description

Each claim over 20 or, for Reissues, each claim over 20 and more than in the original patent

Small Entity

Fee (\$)

Fee (\$)

50 25

Each independent claim over 3 or, for Reissues, each independent claim more than in the original patent

200 100

Multiple dependent claims

360 180

Total Claims	Extra Claims	Fee (\$)	Fee Paid (\$)	Multiple Dependent Claims	Fee (\$)	Fee Paid (\$)
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- 20 or HP = \_\_\_\_\_ x \_\_\_\_\_ = \_\_\_\_\_  
 HP = highest number of total claims paid for, if greater than 20

Indep. Claims	Extra Claims	Fee (\$)	Fee Paid (\$)	Multiple Dependent Claims	Fee (\$)	Fee Paid (\$)
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- 3 or HP = \_\_\_\_\_ x \_\_\_\_\_ = \_\_\_\_\_  
 HP = highest number of independent claims paid for, if greater than 3

## 3. APPLICATION SIZE FEE

If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$250 (\$125 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).

Total Sheets	Extra Sheets	Number of each additional 50 or fraction thereof	Fee (\$)	Fee Paid (\$)
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- 100 = \_\_\_\_\_ / 50 = \_\_\_\_\_ (round up to a whole number) x \_\_\_\_\_ = \_\_\_\_\_

## 4. OTHER FEE(S)

Non-English Specification, \$130 fee (no small entity discount)

Other: Appeal Brief (Fee Code 1402)

Fees Paid (\$)

500.00

## SUBMITTED BY

Signature		Registration No. 45,070 (Attorney/Agent)	Telephone 612-331-7419
Name (Print/Type)	Robin A. Sannes		Date September 27, 2005

This collection of information is required by 37 CFR 1.136. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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In re Application of James R. Mock, Sr. et al.  
Serial No. 10/091,634  
Docket No. 117P60US01

**REAL PARTY IN INTEREST**

The real party in interest is Ecolab Inc., the assignee of the patent application, as evidenced by the Assignment recorded on March 5, 2002 at Reel 012693, Frame 0869.

In re Application of James R. Mock, Sr. et al.  
Serial No. 10/091,634  
Docket No. 117P60US01

RELATED APPEALS AND INTERFERENCES

Appellants, Appellants' legal representative, and the assignee are not aware of any appeals or interference proceedings before the U.S. Patent and Trademark Office that will directly affect, be directly affected by, or have a bearing on the Board's decision in this appeal.

STATUS OF CLAIMS

Claims 1-22 were filed with the application on March 5, 2002. In an Office Action mailed January 21, 2003, claims 1-22 were rejected. An Amendment was filed on May 14, 2003 canceling claims 1 and 6 and amending claims 2, 4, 5, 7-10, 19, 21, and 22. Claims 2-5 and 7-22 were rejected in a Final Office Action mailed September 5, 2003. An Amendment After Final was filed on November 4, 2003 amending claims 11, 16, and 22 and adding claims 23-27. An Advisory Action mailed November 18, 2003 advised that the Amendment After Final filed on November 4, 2003 raised new issues with newly added claims 23-27 that would require further consideration and/or search and did not place the application in condition for allowance. A Request for Continued Examination was filed on December 3, 2003. Claims 2-5 and 7-27 were rejected in an Office Action mailed December 30, 2003. An Amendment was filed on April 30, 2004 amending claims 2, 7, 11, 16, and 21. Claims 2-5 and 7-27 were rejected in a Final Office Action mailed August 20, 2004. An Amendment After Final was filed on November 4, 2004 amending claims 2, 7, 11, 16, 17, and 22. An Advisory Action mailed January 24, 2005 advised that the Amendment After Final did not place the application in condition for allowance. A Request of Continued Examination was filed on February 18, 2005 with an Amendment amending claims 2, 7, 11, 16, and 22. Claims 2-5 and 7-27 were rejected in an Office Action mailed May 17, 2005. This appeal followed, and claims 2-5 and 7-22 are the claims being appealed.

In re Application of James R. Mock, Sr. et al.  
Serial No. 10/091,634  
Docket No. 117P60US01

STATUS OF AMENDMENTS

No Amendments have been filed subsequent to the rejection of claims 2-5 and 7-27 in the Office Action mailed May 17, 2005.

The Appendix containing a listing of the claims involved in the appeal incorporate all of the amendments made by Appellants.

SUMMARY OF CLAIMED SUBJECT MATTER

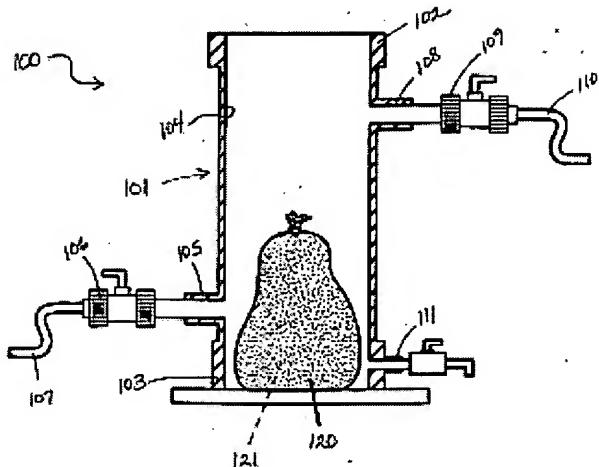
A concise explanation of the invention for each of the independent claims involved in the appeal is as follows:

Claim 2

Claim 2 recites a method of dispensing cyanuric acid into a swimming pool. A chemical consisting of cyanuric acid is provided, and a permeable bag into which the cyanuric acid is placed is provided. The permeable bag containing the cyanuric acid is placed into a cavity of a feeder having an inlet and an outlet, which are in fluid communication with the cavity of the feeder. Water is supplied to the inlet, and the water is allowed to flood the cavity thereby dissolving a portion of the cyanuric acid to create a use solution. The inlet regulates an amount of water flowing into the cavity. The use solution is allowed to exit the cavity through the outlet and flow into a swimming pool. The outlet regulates an amount of use solution flowing out of the cavity.

An exemplary embodiment of the claimed subject matter is shown in Figure 3:

Figure 3



In this exemplary embodiment, dispensing cyanuric acid into a swimming pool using the feeder 100 shown in Figure 3 is discussed on page 4, line 8 through page 5, line 16 of the specification. The permeable bag 120 containing the cyanuric acid 121 is placed into the cavity 104 of the feeder 100. Water is supplied to the inlet 105, water floods the cavity 104 and dissolves a portion of the cyanuric acid 121 to create a use solution, and the use solution exits the cavity 104 through the outlet 108.

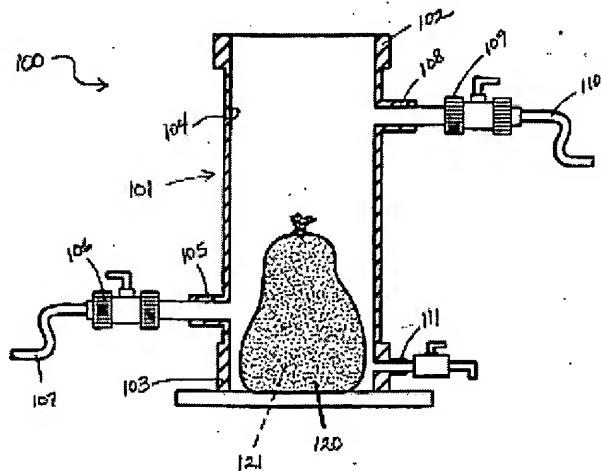
Claim 7

Claim 7 recites a method of dispensing cyanuric acid into a swimming pool. A chemical consisting of cyanuric acid is provided, and a feeder having a water inlet, a cavity, and a use solution outlet is provided. The water inlet and the use solution outlet are in fluid

communication with the cavity of the feeder. A permeable member is placed between the cyanuric acid and the use solution outlet, wherein the permeable member prevents the cyanuric acid from exiting the cavity through the use solution outlet. The cyanuric acid is placed in the cavity. Water is supplied to the water inlet, which regulates an amount of water entering the cavity, wherein the water enters the cavity and dissolves a portion of the cyanuric acid thereby creating a use solution. The use solution is allowed to exit the cavity through the use solution outlet and flow into the swimming pool. The use solution outlet regulates an amount of use solution exiting the cavity.

An exemplary embodiment of the claimed subject matter is shown in Figure 3:

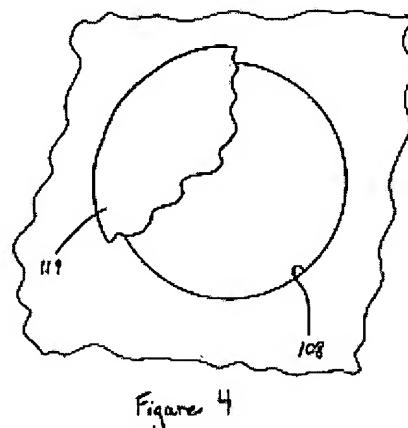
Figure 3



In this exemplary embodiment, dispensing cyanuric acid into a swimming pool using the feeder 100 shown in Figure 3 is discussed on page 4, line 8 through page 5, line 26 of the

specification. A permeable member, which in this embodiment is the permeable bag 120 containing the cyanuric acid 121, is placed between the cyanuric acid 121 and the use solution outlet 108. The permeable bag 120 prevents the cyanuric acid 121 from exiting the cavity 104 through the use solution outlet 108. Water is supplied to the water inlet 105 and enters the cavity 104. The water in the cavity 104 dissolves a portion of the cyanuric acid 121 and creates a use solution, which exits the cavity 104 through the use solution outlet 108 and flows into the swimming pool.

Another exemplary embodiment of the claimed subject matter is shown in Figure 4:



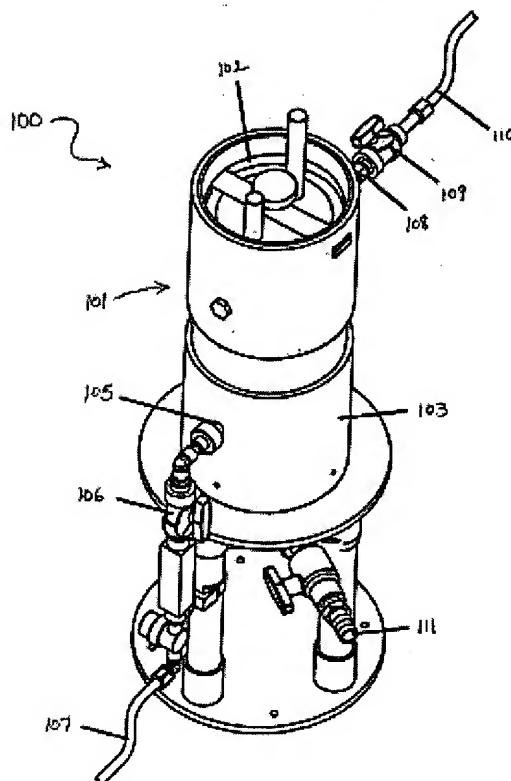
In this exemplary embodiment, rather than using the permeable bag 120 shown in Figure 3, a mesh member 119 may be placed between the cyanuric acid and the use solution outlet 108 to prevent the cyanuric acid from exiting the cavity through the use solution outlet. This is discussed on page 5, lines 12-26 of the specification.

Claim 11

Claim 11 recites a method of stabilizing chlorine dispensed with a dispenser in a swimming pool. A chemical consisting of cyanuric acid is placed into a cavity of a container having an inlet and an outlet, which are in fluid communication with the cavity of the container. The container is supplied with a diluent, and the inlet regulates an amount of diluent entering the cavity. The diluent enters the cavity via the inlet and dissolves a portion of the cyanuric acid thereby creating a use solution. The use solution is allowed to exit the cavity via the outlet, which regulates an amount of use solution exiting the cavity. The use solution is dispensed into the swimming pool, wherein the cyanuric acid stabilizes the chlorine in the swimming pool and the container reduces an occurrence of cyanuric acid block in the swimming pool.

An exemplary embodiment of the claimed subject matter is shown in Figure 2:

Figure 2



In this exemplary embodiment, chlorine dispensed with a dispenser in a swimming pool is stabilized by placing a chemical consisting of cyanuric acid into a cavity of a container 100 having an inlet 105 and an outlet 108 in fluid communication with the cavity. A diluent is supplied to the inlet 105, which regulates the amount of diluent entering the cavity. The diluent in the cavity dissolves a portion of the cyanuric acid and creates a use solution. The use solution exits the cavity via the outlet 108, which regulates the amount of use solution exiting the cavity. The use solution is dispensed into the swimming pool and stabilizes the chlorine in the

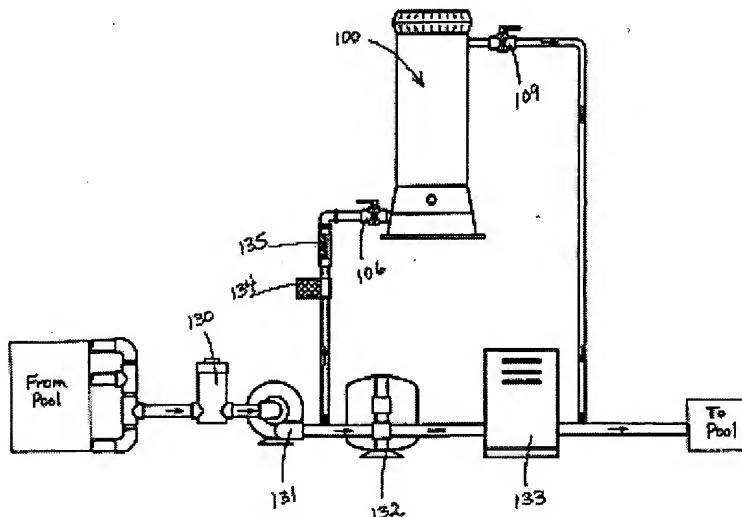
swimming pool. The container 100 reduces an occurrence of cyanuric acid block in the swimming pool.

Claim 16

Claim 16 recites a method of stabilizing chlorine dispensed with a dispenser in a swimming pool, the swimming pool including a circulation system having a water pump, a filter, and a heater. A feeder having an inlet, a cavity, and an outlet is provided. The inlet is connected to the circulation system between the water pump and the filter with a first conduit. The outlet is connected to the circulation system after the heater with a second conduit. A chemical consisting of cyanuric acid is placed into the cavity of the feeder. Means for preventing the cyanuric acid from flowing out of the outlet in a solid form is provided. The cavity is flooded with water received from the circulation system via the inlet, which regulates an amount of water entering the cavity. A portion of the cyanuric acid is dissolved thereby creating a use solution. The use solution is allowed to exit the outlet, which regulates an amount of use solution exiting the cavity. The use solution is routed into the swimming pool, and the feeder reduces an occurrence of cyanuric acid block in the swimming pool.

An exemplary embodiment of the claimed subject matter is shown in Figure 1:

Figure 1

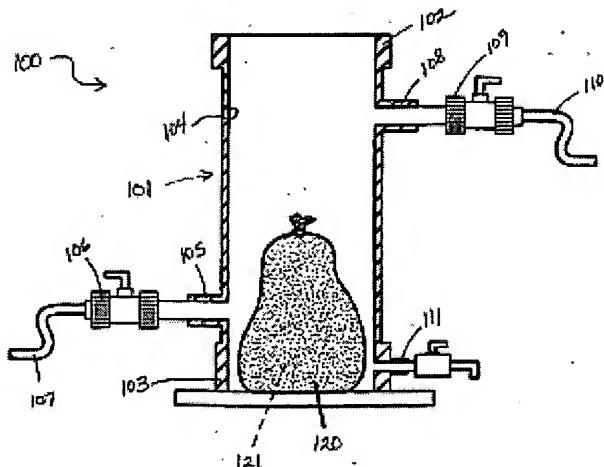


In this exemplary embodiment, stabilizing chlorine dispensed with a dispenser in a swimming pool including a circulation system having a water pump 131, a filter 132, and a heater 133 is shown in Figure 1 and discussed on page 6, lines 8-21 and on page 8, line 13 through page 9, line 20 of the specification. The inlet 105 of the feeder 100 is connected to the circulation system between the water pump 131 and the filter 132. The outlet 108 of the feeder 100 is connected to the circulation system after the heater 133. A chemical consisting of cyanuric acid is placed into the cavity of the feeder 100, and means for preventing the cyanuric acid from flowing out of the outlet 108 in solid form is provided. The cavity is flooded with water received from the circulation system via the inlet 105, which regulates an amount of water entering the cavity. A portion of the cyanuric acid is dissolved thereby creating a use solution,

and the use solution is allowed to exit the outlet 108, which regulates an amount of use solution exiting the cavity. The use solution is routed into the swimming pool, and the feeder 100 reduces an occurrence of cyanuric acid block in the swimming pool.

With regard to the “means for preventing the cyanuric acid from flowing out of the outlet in a solid form”, in one exemplary embodiment, a permeable bag 120 is provided as discussed on page 5, lines 12-26 and shown in Figure 3:

Figure 3



As discussed on page 5, lines 19-22, the permeable bag 120 contains the cyanuric acid granules and allows the cyanuric acid to dissolve and dispense into the use solution.

In another exemplary embodiment, a mesh member 119 is provided as the “means for preventing the cyanuric acid from flowing out of the outlet in a solid form” as discussed on page 5, lines 12-26 and shown in Figure 4:

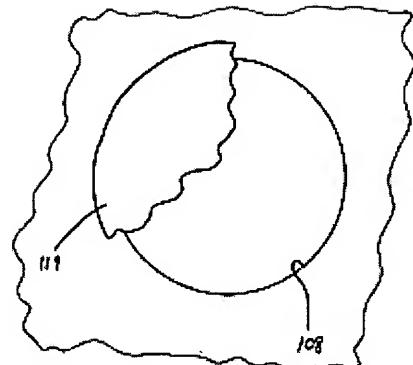


Figure 4

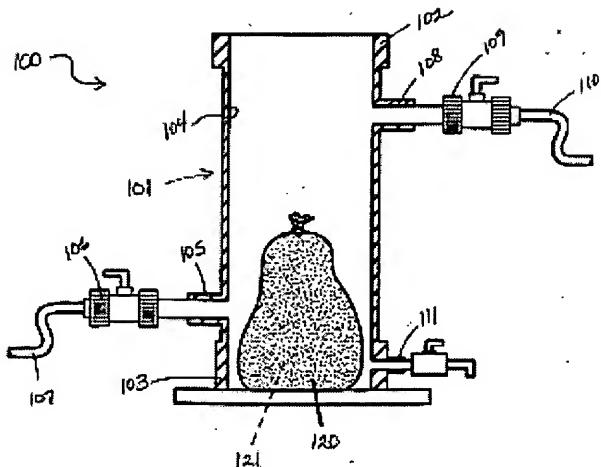
As discussed on page 5, lines 19-22, the mesh member 119 contains the cyanuric acid granules and allows the cyanuric acid to dissolve and dispense into the use solution.

Claim 19

Claim 19 recites a method of packaging cyanuric acid for dispensing the cyanuric acid from the packaging. A desired quantity of cyanuric acid is placed into a permeable bag, and an opening of the permeable bag is sealed thereby containing the cyanuric acid, wherein fine particles of the cyanuric acid may escape from the permeable bag.

An exemplary embodiment of the claimed subject matter is shown in Figure 3:

Figure 3



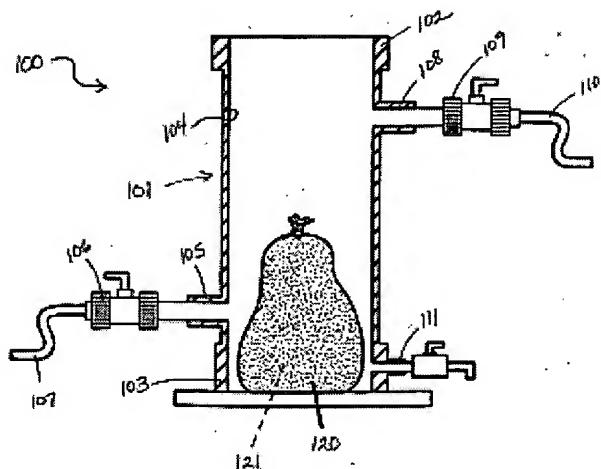
In this exemplary embodiment, the permeable bag 120 contains a desired quantity of cyanuric acid 121, as discussed on page 4, line 28 through page 5, line 11.

Claim 22

Claim 22 recites a packaging for use with a dispenser for dispensing cyanuric acid. A desired amount of cyanuric acid product is contained within a permeable bag having a dispensing rate of approximately 0.20 to 1.40 pounds of cyanuric acid per hour. The permeable bag is replaceable when the cyanuric acid product has been depleted within the permeable bag.

An exemplary embodiment of the claimed subject matter is shown in Figure 3:

Figure 3



In this exemplary embodiment, the permeable bag 120 contains a desired quantity of cyanuric acid 121, as discussed on page 4, line 28 through page 5, line 11.

In re Application of James R. Mock, Sr. et al.  
Serial No. 10/091,634  
Docket No. 117P60US01

GROUNDS OF REJECTION TO BE REVIEWED ON APPEAL

Claims 2-5 and 7-27 stand rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 3,772,193 to Nelli et al. in view of U.S. Patent 4,217,331 to Schaub.

## ARGUMENTS

Rejection under 35 U.S.C. 103(a) over U.S. Patent 3,772,193 to Nelli et al. in view of U.S. Patent 4,217,331 to Schaub.

### Claims 2-5 and 7-27

The Examiner has stated that Nelli et al. discloses the claimed invention with the exception of disclosing the use of cyanuric acid and with the exception of providing a bag that is replaceable. The Examiner has also stated that Schaub discloses a float dispenser to dispense chemicals such as cyanuric acid into a swimming pool and discloses a dispenser to dispense chemicals that does provide a bag that is replaceable. The Examiner has rejected these claims because the Examiner has stated it would have been obvious to modify the invention of Nelli et al. by dispensing cyanuric acid in order to stabilize chlorine in a swimming pool and by providing a replaceable bag in order to enable a user to reuse the device.

Generally, Nelli et al. discloses a chemical retaining and metering device but does not disclose dispensing cyanuric acid therefrom. Generally, Schaub discloses a float dispenser including a receptacle supported below the water in which a tablet of a water soluble product such as “a cyanuric acid compound” is contained. Substantially the entire surface of the tablet is exposed to the water within the receptacle, and the receptacle does not control the amount of product dispensed.

The Affidavit submitted by Mr. Mock on November 4, 2003 provides evidence of the long-felt need for dispensing and metering cyanuric acid into a swimming pool during use of the pool, when the dispensing of cyanuric acid is most beneficial. When the cyanuric acid is dispensed from the feeder of the present invention, it is dissolved and in solution before it is dispensed from the feeder, not in solid tablet form in the swimming pool as in Schaub. The dispenser of the present invention meters the dispensing of the cyanuric acid and does not interfere with the enjoyment of the swimming pool. In Schaub, the float dispenser does not meter the dispensing of the cyanuric acid, and the float dispenser interferes with the enjoyment of the swimming pool because users could swim into it as it floats along the surface of the water. The dispenser of Schaub is essentially like broadcasting the product because the product is placed in the swimming pool and dissolved as the tablet is exposed to the swimming pool water. As discussed in the Affidavit, there are problems associated with how cyanuric acid is dispensed in the industry, and these problems are solved by use of the present invention.

In this regard, in paragraphs 8 and 9 of the Affidavit, Mr. Mock discusses the long-felt need that is satisfied with the present invention. There is a long-felt need to dispense cyanuric acid into a pool during daylight hours and/or periods of high use when stabilization of the sanitizer is most beneficial without interfering with the users' enjoyment of the pool. Using the dispenser of Schaub interferes with the users' enjoyment because users could swim into the dispenser as it floats along the surface of the water. Because the present invention allows for cyanuric acid to be dispensed separately from the sanitizer during use of the pool without

interfering with the enjoyment of the pool, this persistent, long-felt need that has not been solved by others is solved with the present invention.

Applicants respectfully submit that there is no basis in the art for selecting and combining these cited references to render the present invention obvious. The device of Nelli et al. neither teaches nor suggests dispensing cyanuric acid therefrom. The device of Schaub is not a metering device for dispensing a cyanuric acid compound, and the mere fact that a cyanuric acid compound is dispensed in a float dispenser does not render the present invention obvious to one skilled in the art. Using a float dispenser is not much different than broadcasting a chemical into the swimming pool because the chemical is dispensed as the surface of the chemical is exposed to the water, not by metering the chemical in a use solution into the swimming pool. Therefore, because it is neither taught nor suggested to meter the dispensing of a cyanuric acid compound in a use solution in Schaub and because cyanuric acid is not dispensed from the device of Nelli et al., it is not obvious to place cyanuric acid into the dispenser of Nelli et al. Applicants submit that the present invention is not obvious to one skilled in the art.

Even if it were obvious to combine the two cited references, the combined references do not result in the present invention. Placing the cyanuric acid compound tablet of Schaub in the dispenser of Nelli et al. would not result in the present invention. The present invention dispenses a desired amount of cyanuric acid into a swimming pool to stabilize the chlorine in the swimming pool. It is not simply placing a cyanuric acid compound within an existing chlorine dispenser, and the permeable bag or mesh member includes a mesh specific to cyanuric acid so

that the desired amount of cyanuric acid is dispensed. It is important to dispense an appropriate amount of cyanuric acid into the swimming pool to stabilize the chlorine without “blocking” the chlorine. Therefore, the present invention is not obvious in view of these references.

### Cyanuric Acid

Applicants respectfully submit that “a cyanuric acid compound”, as recited in column 4, lines 41-45 of Schaub, is not equivalent to cyanuric acid. Cyanuric acid, by itself, cannot feasibly be manufactured into a tablet form for dispensing in the float dispenser of Schaub for two reasons. First, cyanuric acid has very poor solubility in water. In granular form, it takes approximately 6 to 8 hours to fully dissolve, and in tablet form as in Schaub, it would take several days to fully dissolve, which is too long to sufficiently stabilize chlorine in a swimming pool with a high volume of use. Second, because of the density of cyanuric acid, it is very difficult to compress and bond cyanuric acid particles together to form a tablet. The tablets tend to crack and crumble apart. Therefore, “a cyanuric acid compound” includes cyanuric acid and another compound, not just cyanuric acid by itself. Further, the example in Schaub uses trichloro-s triazinetrione, and the use of cyanuric acid by itself is neither taught nor suggested in Schaub. Therefore, Applicants submit that the use of “a cyanuric acid compound” in a float dispenser does not render the present invention obvious. All the claim limitations must be taught or suggested by the prior art, and because using cyanuric acid by itself is neither taught nor suggested, the present invention is not obvious in view of Schaub.

The Examiner states that in view of Schaub, it would have been obvious to one of ordinary skill to have dispensed cyanuric acid in the device of Nelli et al. in order to stabilize chlorine in a swimming pool. In addition to the fact that “a cyanuric acid compound” is not equivalent to cyanuric acid, Applicants respectfully submit that there is no basis in the art for selecting and combining these references to render the present invention obvious. The device of Schaub is not a metering device for dispensing a cyanuric acid compound, and the mere fact that a cyanuric acid compound is dispensed in a float dispenser does not render the present invention obvious to one skilled in the art. Using a float dispenser is not much different than broadcasting a chemical into the swimming pool because the chemical is dispensed as the surface of the chemical is exposed to the water, not by metering the chemical in a use solution into the swimming pool. Therefore, because it is neither taught nor suggested to meter the dispensing of a cyanuric acid compound in a use solution in Schaub and because cyanuric acid is not dispensed from the device of Nelli et al., it is not obvious to place cyanuric acid into the dispenser of Nelli et al. Applicants submit that the present invention is not obvious to one skilled in the art.

Even if it were obvious to combine the two cited references, the combined references do not result in the present invention. Placing the compound in tablet form of Schaub, “a cyanuric acid compound”, in the dispenser of Nelli et al. would not result in the present invention. Neither reference teaches or suggests using cyanuric acid by itself in a metering dispenser. The present invention dispenses a desired amount of cyanuric acid into a swimming pool to stabilize the chlorine in the swimming pool. Again, cyanuric acid alone, not in combination with another

compound, is dispensed in addition to chlorine in an independent dispenser, not within the same dispenser or in lieu of the chlorine dispenser. It is not simply placing cyanuric acid within an existing chlorine dispenser, and the permeable bag or mesh member includes a mesh specific to cyanuric acid so that the desired amount of cyanuric acid is dispensed. It is important to dispense an appropriate amount of cyanuric acid into the swimming pool to stabilize the chlorine without “blocking” the chlorine. Therefore, the present invention is not obvious in view of these references.

#### Replaceable Bag

The Examiner also states that in view of Schaub, it would have been obvious to one of ordinary skill in the art to have replaced the bag of chemicals in the dispensing device of Nelli et al. in order to enable a user to reuse the device. Again, there is no basis in the art for selecting and combining these references to render the present invention obvious. Even if it were obvious to combine these references, the combination does not render the present invention obvious. In Schaub, the chemical to be replaced is the tablet form of the chemical, and a tablet is different than a bag containing a chemical. A replaceable bag is neither taught nor suggested in Schaub. The tablet of Schaub is self-contained, not contained within a bag. If one were to place the tablet form of the chemical disclosed in Schaub into the dispenser disclosed in Nelli et al., as the Examiner suggests, the result is not a replaceable bag containing chemical. When the tablets of Schaub are depleted within the dispenser of Nelli et al., tablets must be replaced, not the bag

containing the tablets, to reuse the dispenser. Therefore, replacing a bag containing a chemical in the dispenser is not obvious in view of these references.

Applicants respectfully submit that neither Nelli et al. nor Schaub discloses a replaceable bag of chemicals. Nelli et al. discloses in column 2, line 57 to column 3, line 17 a chemical retaining and metering assembly to prevent a chemical from entering the annular space of the receptacle when the assembly is recharged with the chemical. The chemical is poured into the assembly when more chemical is needed; the assembly is not replaced each time more chemical is needed. Schaub discloses in column 4, lines 36 to 60 a tablet that is a solid material soluble in water placed within a compartment of a float dispenser. The float dispenser does not include a replaceable bag of chemicals because the tablet of solid material is placed within the compartment. Neither the pouring of a chemical into a chemical retaining and metering assembly nor the placing a tablet of solid material into a compartment of a float dispenser teaches or suggests a replaceable bag of chemicals.

In addition, it is also not obvious to one skilled in the art because cyanuric acid is not available for purchase in such a permeable bag as in the present invention. Applicants determined the appropriate material and mesh for the permeable bag to get the desired dispensing rate of the cyanuric acid within the feeder. Rather than measuring the amount of cyanuric acid to be placed within the feeder, the empty permeable bag is replaced with a new permeable bag containing the desired amount of cyanuric acid within the feeder. A high degree of knowledge and expertise is required to maintain the appropriate level of cyanuric acid in a commercial

swimming pool, and the present invention allows untrained personnel to maintain these levels.

Therefore, the present invention is not obvious to one skilled in the art.

Claim 2

More particularly, claim 2 recites placing cyanuric acid into a permeable bag and then placing the permeable bag containing the cyanuric acid into a cavity of a feeder. The cyanuric acid is dispensed when water floods the cavity and dissolves a portion of the cyanuric acid contained in the permeable bag to create a use solution, which exits the cavity of the feeder and flows into a swimming pool. The cyanuric acid is not poured into a cavity of a dispenser as in Nelli et al., and the cyanuric acid is not a tablet of solid material placed into a compartment of a float dispenser as in Schaub. As discussed on page 5, lines 1-26 of the specification, the permeable bag allows the cyanuric acid to be dissolved into a use solution and prevents the cyanuric acid particles from flowing intact or un-dissolved into the swimming pool. Because neither Nelli et al. nor Schaub teaches or suggests placing a permeable bag containing cyanuric acid into a cavity of a feeder, allowance of claim 2 is respectfully requested. Because claims 3-5 and 23 depend upon claim 2, it is respectfully requested that these claims also be allowed.

Claim 7

More particularly, claim 7 recites placing cyanuric acid in a cavity of a feeder, supplying water to the cavity thereby creating a use solution within the cavity, and allowing the use

solution to exit the cavity and flow into a swimming pool. A permeable member between the cyanuric acid and the use solution outlet prevents the cyanuric acid from exiting the cavity through the use solution outlet, which ensures the use solution is dispensed into the swimming pool, not cyanuric acid in a solid form as in Schaub. The inlet regulates the amount of water entering the cavity, and the use solution outlet regulates the amount of use solution exiting the cavity. Because it is neither taught nor suggested to meter the dispensing of a cyanuric acid compound in a use solution in Schaub and because cyanuric acid is not dispensed from the device of Nelli et al., it is not obvious to place cyanuric acid into the dispenser of Nelli et al. Further in this regard, because neither Nelli et al. nor Schaub teaches or suggests placing a permeable member between the cyanuric acid and the use solution outlet, allowance of claim 7 is respectfully requested. Because claims 8-10 and 24 depend upon claim 7, it is respectfully requested that these claims also be allowed.

Claim 11

More particularly, claim 11 recites placing a chemical consisting of cyanuric acid into a cavity of a container, supplying the container with a diluent dissolving a portion of the cyanuric acid and creating a use solution, and allowing the use solution to exit the cavity and dispensing the use solution into a swimming pool to stabilize chlorine in the swimming pool and reducing the occurrence of cyanuric acid block in the swimming pool. The inlet regulates the amount of diluent entering the cavity, and the outlet regulates the amount of use solution exiting the cavity.

Because it is neither taught nor suggested to meter the dispensing of a cyanuric acid compound in a use solution in Schaub and because cyanuric acid is not dispensed from the device of Nelli et al., it is not obvious to place cyanuric acid into the dispenser of Nelli et al. It is respectfully requested that claim 11 be allowed. Because claims 12-15 and 25 depend upon claim 11, it is respectfully requested that these claims also be allowed.

Claim 16

More particularly, claim 16 recites connecting an inlet of a feeder to a circulation system of a swimming pool between the water pump and the filter and connecting an outlet of the feeder to the circulation system of the swimming pool after the heater. Means for preventing cyanuric acid from flowing out of the outlet in a solid form is provided. The cavity is flooded with water received from the circulation system via the inlet, creating a use solution by dissolving a portion of the cyanuric acid with the water, and the use solution is allowed to exit the outlet. The use solution is routed into the swimming pool. Again, it is not obvious to combine Nelli et al. and Schaub because Schaub is a float dispenser and there is no teaching or suggestion to dispense such chemicals in tablet form through the circulation system of the swimming pool. Rather, Schaub dispenses such chemicals as the dispenser floats on top of the swimming pool water. Because Nelli et al. does not disclose the dispensing of cyanuric acid and because Schaub does not disclose dispensing chemicals through the circulation system of the swimming pool, claim 16 is not obvious in view of these references. It is respectfully requested that claim 16 be allowed.

Because claims 17-18 and 26 depend upon claim 16, it is respectfully requested that these claims also be allowed.

Claim 19

More particularly, claim 19 recites placing a desired quantity of cyanuric acid into a permeable bag and sealing an opening of the permeable bag thereby containing the cyanuric acid, wherein fine particles of the cyanuric acid may escape from the permeable bag. Neither Nelli et al. nor Schaub teach or even suggest sealing a permeable bag containing a desired quantity of cyanuric acid. Therefore, claim 19 is not obvious in view of these references and it is respectfully requested that claim 19 be allowed. Because claims 20 and 21 depend upon claim 19, the allowance of claims 19-21 is respectfully requested.

As previously stated, it is also not obvious to one skilled in the art because cyanuric acid is not available for purchase in such a permeable bag as in claim 19. Applicants determined the appropriate material and mesh for the permeable bag to get the desired dispensing rate of the cyanuric acid within the feeder. Rather than measuring the amount of cyanuric acid to be placed within the feeder, the empty permeable bag is replaced with a new permeable bag containing the desired amount of cyanuric acid within the feeder. A high degree of knowledge and expertise is required to maintain the appropriate level of cyanuric acid in a commercial swimming pool, and the present invention allows untrained personnel to maintain these levels. Therefore, the present invention is not well known by those skilled in the art.

Claim 22

More particularly, claim 22 recites a packaging for use with a dispenser for dispensing cyanuric acid. A desired amount of cyanuric acid is contained within a permeable bag, and the permeable bag is replaced with a new permeable bag containing cyanuric acid when the cyanuric acid has been depleted from the permeable bag. Because neither Nelli et al. nor Schaub teaches or suggests replacing a permeable bag with a new permeable bag when the cyanuric acid has been depleted from the permeable bag, allowance of claim 22 is respectfully requested.

As previously stated, it is also not obvious to one skilled in the art because cyanuric acid is not available for purchase in such a permeable bag as in claim 22. Applicants determined the appropriate material and mesh for the permeable bag to get the desired dispensing rate of the cyanuric acid within the feeder. Rather than measuring the amount of cyanuric acid to be placed within the feeder, the empty permeable bag is replaced with a new permeable bag containing the desired amount of cyanuric acid within the feeder. A high degree of knowledge and expertise is required to maintain the appropriate level of cyanuric acid in a commercial swimming pool, and the present invention allows untrained personnel to maintain these levels. Therefore, the present invention is not well known by those skilled in the art.

In re Application of James R. Mock, Sr. et al.  
Serial No. 10/091,634  
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CONCLUSION

Because neither Nelli et al. nor Schaub teach or suggest \*, the claimed subject matter is not obvious in view of these references. In view of the aforesaid reasons, and those advanced during prosecution to date, the Appellants request that the Examiner's rejections be reversed.

Respectfully submitted,

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APPENDIX

LISTING OF CLAIMS ON APPEAL

2. A method of dispensing cyanuric acid into a swimming pool, comprising:
  - providing a chemical consisting of cyanuric acid;
  - providing a permeable bag into which said cyanuric acid is placed;
  - placing said permeable bag containing said cyanuric acid into a cavity of a feeder having an inlet and an outlet, said inlet and said outlet being in fluid communication with said cavity;
  - supplying water to said inlet and allowing said water to flood said cavity thereby dissolving a portion of said cyanuric acid to create a use solution, said inlet regulating an amount of water flowing into said cavity; and
  - allowing said use solution to exit said cavity through said outlet and flow into a swimming pool, said outlet regulating an amount of use solution flowing out of said cavity.
3. The method of claim 2, wherein said cyanuric acid is dispensed from said outlet at a rate of approximately 0.5 to 8.0 gallons per minute.
4. The method of claim 2, wherein said cyanuric acid, said permeable bag, and said feeder have a dispensing rate of approximately 0.20 to 1.40 pounds of cyanuric acid per hour.
5. The method of claim 2, the swimming pool having a circulation system with a pump and a heater, wherein said inlet is installed after the pump and said outlet is installed after the heater, whereby said feeder is in fluid communication with the circulation system.
7. A method of dispensing cyanuric acid into a swimming pool, comprising:

providing a chemical consisting of cyanuric acid;

providing a feeder having a water inlet, a cavity, and a use solution outlet, said water inlet and said use solution outlet being in fluid communication with said cavity;

placing a permeable member between said cyanuric acid and said use solution outlet, wherein said permeable member prevents said cyanuric acid from exiting said cavity through said use solution outlet;

placing said cyanuric acid in said cavity;

supplying water to said water inlet, said water inlet regulating an amount of water entering said cavity, wherein said water enters said cavity and dissolves a portion of said cyanuric acid thereby creating a use solution; and

allowing said use solution to exit said cavity through said use solution outlet and flowing into the swimming pool, said use solution outlet regulating an amount of use solution exiting said cavity.

8. The method of claim 7, wherein said permeable member is a bag containing said cyanuric acid.

9. The method of claim 7, wherein said permeable member is a mesh member covering said use solution outlet.

10. The method of claim 7, the swimming pool having a circulation system with a pump and a heater, wherein said inlet is installed after the pump and said outlet is installed after the heater, whereby said feeder is in fluid communication with the circulation system.

11. A method of stabilizing chlorine dispensed with a dispenser in a swimming pool, comprising:

placing a chemical consisting of cyanuric acid into a cavity of a container having an inlet and an outlet, said inlet and said outlet being in fluid communication with said cavity;

supplying said container with a diluent, said inlet regulating an amount of diluent entering said cavity, said diluent entering said cavity via said inlet and dissolving a portion of said cyanuric acid thereby creating a use solution;

allowing said use solution to exit said cavity via said outlet, said outlet regulating an amount of use solution exiting said cavity; and

dispensing said use solution into the swimming pool, wherein said cyanuric acid stabilizes the chlorine in the swimming pool, said container reducing an occurrence of cyanuric acid block in the swimming pool.

12. The method of claim 11, further comprising placing a permeable member between said cyanuric acid and said outlet, said permeable member preventing cyanuric acid that has not been dissolved into said use solution from exiting said cavity through said outlet.

13. The method of claim 12, wherein said permeable member is a bag containing said cyanuric acid.

14. The method of claim 12, wherein said permeable member is a mesh member covering said outlet.

15. The method of claim 11, further comprising:

connecting said inlet of said container to a first conduit interconnecting a pump and a filter of an existing circulation system of the swimming pool;

connecting said outlet of said container to a second conduit after a heater of said existing circulation system of the swimming pool; and

allowing water from said existing circulation system to be routed into said cavity to create said use solution which is then dispensed into the swimming pool.

16. A method of stabilizing chlorine dispensed with a dispenser in a swimming pool, the swimming pool including a circulation system having a water pump, a filter, and a heater, comprising:

providing a feeder having an inlet, a cavity, and an outlet;

connecting said inlet to the circulation system between the water pump and the filter with a first conduit;

connecting said outlet to the circulation system after the heater with a second conduit;

placing a chemical consisting of cyanuric acid into said cavity of said feeder;

providing means for preventing said cyanuric acid from flowing out of said outlet in a solid form;

flooding said cavity with water received from the circulation system via said inlet, said inlet regulating an amount of water entering said cavity;

dissolving a portion of said cyanuric acid thereby creating a use solution;

allowing said use solution to exit said outlet, said outlet regulating an amount of use solution exiting said cavity; and

routing said use solution into the swimming pool, said feeder reducing an occurrence of cyanuric acid block in the swimming pool.

17. The method of claim 16, wherein the means for preventing said cyanuric acid from flowing out of said outlet in solid form is a permeable bag containing said cyanuric acid.

18. The method of claim 16, wherein the means for preventing said cyanuric acid from flowing out of said outlet in solid form is a permeable member placed over said outlet.

19. A method of packaging cyanuric acid for dispensing the cyanuric acid from the packaging, comprising:

placing a desired quantity of cyanuric acid into a permeable bag; and  
sealing an opening of the permeable bag thereby containing the cyanuric acid, wherein fine particles of the cyanuric acid may escape from the permeable bag.

20. The method of claim 19, further comprising:

placing the permeable bag containing the cyanuric acid in contact with a diluent; and  
allowing the diluent to dissolve a portion of the cyanuric acid thereby creating a use solution, whereby the use solution exits the permeable bag.

21. The method of claim 20, wherein the permeable bag is placed in a container having an inlet and an outlet, the inlet regulating an amount of diluent entering the container, the outlet regulating an amount of use solution exiting the container, wherein the diluent is supplied to the

container through the inlet and the use solution exits the container through the outlet, and wherein the cyanuric acid is dispensed without clogging the outlet, the cyanuric acid, the permeable bag, and the container having a dispensing rate of approximately 0.20 to 1.40 pounds of cyanuric acid per hour.

22. A packaging for use with a dispenser for dispensing cyanuric acid, comprising:
  - a chemical consisting of cyanuric acid; and
  - a permeable bag, a desired amount of said cyanuric acid product being contained within said permeable bag and having a dispensing rate of approximately 0.20 to 1.40 pounds of cyanuric acid per hour, said permeable bag being replaceable when said cyanuric acid has been depleted within said permeable bag.
23. The method of claim 2, wherein said permeable bag containing said cyanuric acid is replaced with a new permeable bag containing cyanuric acid when said cyanuric acid has been depleted from said permeable bag.
24. The method of claim 8, wherein said bag containing said cyanuric acid may be replaced with a new bag containing cyanuric acid when said cyanuric acid has been depleted from said bag.
25. The method of claim 13, wherein said bag containing said cyanuric acid may be replaced with a new bag containing cyanuric acid when said cyanuric acid has been depleted from said bag.

26. The method of claim 17, wherein said permeable bag may be replaced with a new permeable bag containing cyanuric acid when said cyanuric acid has been depleted from said permeable bag.
27. The method of claim 19, wherein said permeable bag may be replaced with a new permeable bag containing cyanuric acid when said cyanuric acid has been depleted from said permeable bag.